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ABSTRACT

Intended for administrators and policymakers as well as teachers, this digest explores the nature of students' metacomprehension, or their awareness of their own understanding, and the implications of this awareness for reading instruction. After defining metacomprehension, the digest discusses why this awareness is important to the learning process. It then suggests ways that English and language arts teachers can help students improve their metacomprehension. Finally, the digest explores ways in which teachers can evaluate student metacomprehension. (HTH)

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ERIC Digest

METACOMPREHENSION

by

Sally N. Standiford

Teachers make many instructional decisions based on their assessments of student comprehension. "Excellent" students, for example, are often given enrichment materials, so that they won't be bored while the teacher works with other students; "poor" students, on the other hand, are often given remedial materials to help them "catch up." Almost always, such decisions are based on what a student knows or doesn't know relative to the teacher's questions. Although assessment of a student's comprehension is necessary and important, it is not always sufficient. There is another dimension that teachers might consider: the student's metacomprehension, or awareness of his or her own understanding.

WHAT IS METACOMPREHENSION?

Who of us has not had the experience of reading a book and becoming aware that we have not understood the content of the last few pages? At the point of that awareness, our metacomprehension was very high--we knew we hadn't processed anything we'd just read. On the other hand, while we were reading absentmindedly, our metacomprehension was very low--we had been unaware of our own level of understanding. Metacomprehension, then, is the awareness of and conscious control over one's own understanding or lack of it.

Regardless of whether or not students are "doing well" (by

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whatever grading scheme we use), they may or may not be aware of their own degree of understanding. Students with high metacomprehension are either those who know they understand when, in fact, they do, or those who know they do not understand when, in fact, they do not. Their awareness of their understanding accurately reflects their comprehension.

Students have inaccurate or low metacomprehension if they are uncertain, or if they are unaware, that they do or do not understand. Poor metacomprehension may be exhibited in different ways: there are students who are sure they just "blew" tests on which they subsequently get top scores, students who believe that they have the material "down pat" and perform poorly, and students who just haven't thought about their own state of understanding. When we put these comprehension/metacomprehension dimensions together, we can divide our students into four groups.

Insert Comprehension/Metacomprehension Grid Here

WHY IS METACOMPREHENSION IMPORTANT?

One of the primary goals of instruction is to help students become efficient and effective learners--to have them become responsible for their own learning. Effective learning requires awareness of one's understanding or lack of it, as well as knowing what to do when one fails to understand. Baker and Brown (ED 195 932) have identified three main reasons for comprehension failures: (1) the learner does not have enough information about the topic to interpret the message (written or oral); (2) the learner has the appropriate schemata, or prior knowledge, but there aren't enough clues in the message to suggest them to the learner; or (3) the learner interprets the message consistently, but the interpretation is different from the one intended by the author or speaker. It is very unlikely that students in the third group will take remedial

Comprehension

high	low	
know and are aware that they know 1	do not know and realize they do not know 2	high Metacomprehension
3 know but think they don't know	4 do not know but think they do	low

- from Computers in the English Classroom: A Primer for Teachers. ERIC Clearinghouse on Reading and Communication Skills and National Council of Teachers of English, 1983. p. 17. (ED 228 654)

action since they won't realize that their comprehension has failed. Students who fail to construct consistent interpretations are more likely to attempt activities to clarify their understanding. "Such self-awareness is a prerequisite for self-regulation, the ability to orchestrate, monitor, and check one's own cognitive activities" according to Brown, Campione, and Day (ED 202 297), p. 26).

WHAT CAN ENGLISH/LANGUAGE ARTS TEACHERS DO?

Asserting that sophisticated reading is a complex, acquired skill, Stewart and Tei (p. 37) state that readers need to learn how to engage in certain activities to achieve the goals of reading. One such goal, for example, is reading to study. This may involve skills such as recognizing and retaining main points, rereading important sections, making adjustments in reading rate, and self-testing to monitor the success of various strategic activities. Awareness of the understanding and use of these skills is necessary to metacomprehension.

Schallert and Kleiman (ED 172 189) have identified some strategies reading teachers can use to help students' metacomprehension: (1) focusing the student's attention on the main ideas; (2) asking students questions about their understanding to help them monitor their comprehension; and (3) relating the student's relevant prior knowledge to the new information. As teachers we need to teach students how to use such activities and encourage their independent use.

For students with low comprehension-high metacomprehension (Cell 2 of grid), teacher questions and feedback designed to help students apply appropriate studying strategies and techniques can be effective. These students do not gain from those teacher responses that simply indicate that they are wrong--they already know that. As teachers better understand these strategies and

techniques, they can train students to use them more effectively. For example, instructing students to summarize a reading without giving them any criteria for development of a summary does a disservice to those students who are aware that they don't know how to construct such a summary.

Students with high comprehension-low metacomprehension (Cell 3) need consistent, positive reinforcement, both verbal and written. Although some research has demonstrated that the positive reinforcement of confirming correctness for some students is ineffective, regular positive reinforcement is effective for this subset of students, since their lack of confidence is critical.

The approach for students with low comprehension-low metacomprehension (Cell 4) should be to focus on the metacomprehension dimension first, breaking through their false sense of understanding rather than teaching them content. One might ask these students questions that help them recognize a contradiction between what they really know and what they <u>think</u> they know, but don't. For example, a student who draws an illogical inference from a reading passage due to incomplete background knowledge may be unconvinced if simply told that he or she is wrong. Such a student could be confronted with his or her misunderstanding by being shown similarities and/or differences between the passage in question and analagous material more familiar to the student.

HOW CAN TEACHERS EVALUATE STUDENT METACOMPREHENSION?

One of the simplest ways to assess a student's awareness of understanding is to ask the student to rate the certainty that he or she has answered correctly or incorrectly. Students with good metacomprehension will respond that they are relatively certain that their correct answers are correct or that their incorrect answers are incorrect. Poor metacomprehenders will have a mismatch

between their answers and their confidence ratings. A word of caution: younger students frequently respond positively when questioned on how sure they are of what they know, regardless of the truth of their assertions (see Baker and Brown, 1980). More direct evidence of metacomprehension for these students might come from monitoring the self-correction of their errors during such learning activities as reading.

"The ability to reflect on one's own activities...is a late developing skill with important implications....If...the child is not aware of his own limitations as a learner or the complexity of the task at hand, then he can hardly be expected to take preventive actions in order to anticipate or recover from problems" (Baker and Brown, ED 195 932, p. 3). It is not enough for a teacher to be aware of the dimension of comprehension awareness. Development of the student's own awareness is crucial. To better serve their students, English language arts teachers should regularly and actively integrate metacomprehension strategies in their classrooms.

Sources for Further Reading

Baker, Linda and Ann L. Brown. "Metacognitive Skills and Reading." Technical Report No. 188. Cambridge, Mass.: Bolt, Beranek, and Newman, Inc.; Champaign, Ill.: Center for the Study of Reading, 1980. 63pp. (ED 195 932)

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ERIC Clearinghouse on Reading and Communication Skills

ERIC DIGEST

Metacomprehension

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Comprehension: high	Comprehension: low	Metacomprehension
know and are aware that they know 1	do not know and realize they do not know 2	high
know but think they don't know 3	do not know but think they do know 4	low

From *Computers in the English Classroom: A Primer for Teachers.* Sally N. Standiford, Kathleen Jaycox, and Anne Auten. Urbana, Ill.: ERIC Clearinghouse on Reading and Communication Skills and National Council of Teachers of English, 1983, 17. ED 228 654.

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